

Abstract of the Disclosure  
DETECTOR AND LOCK CONTROLLER USING SAME

5           A lock controller has main apparatus provided to a lockable door and a detector  
for detecting an approaching or retreating target object. The detector includes an  
oscillator device for generating a transmission wave, a branching device for branching  
the transmission wave, a transmission device for transmitting the transmission wave into  
space as electromagnetic waves, a reception device for receiving the transmission wave  
10 reflected by the target object, a mixer for mixing a reception signal received by the  
reception device and a branched signal branched by the branching device to output a  
mixed signal, and a judging device for switching on a detection output indicating the  
target object approaching and retreating based on an increase and a decrease of the mixed  
signal outputted from the mixer. A detection distance is set within  $1/4$  wavelength of  
15 frequency effective for the detection. The main apparatus sends by wireless transmission  
a specified request signal to a portable device carried by the user, and if an answer signal  
is received from the portable device in response, causes the lockable part to be unlocked  
after ascertaining that the received answer signal is a correct signal.

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